

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



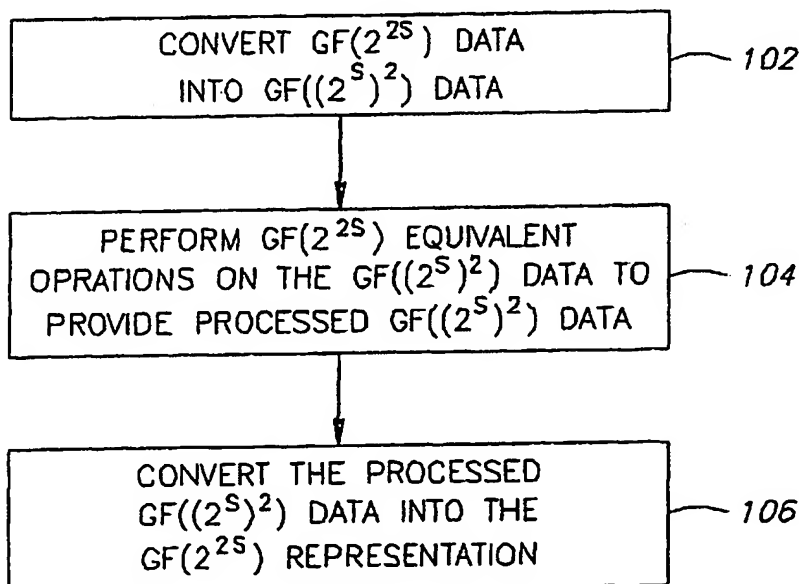
(43) International Publication Date
12 February 2004 (12.02.2004)

PCT

(10) International Publication Number
WO 2004/014016 A1

- (51) International Patent Classification⁷: H04L 9/00, 9/30, 9/14, 9/32
- (21) International Application Number: PCT/IL2003/000647
- (22) International Filing Date: 6 August 2003 (06.08.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 60/401,051 6 August 2002 (06.08.2002) US
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- (54) Title: METHOD AND DEVICE OF MANIPULATING DATA IN FINITE FIELDS
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- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
— with international search report
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

[Continued on next page]



(57) Abstract: Embodiments of the invention provide a method and a device for manipulating data provided in a $GF(2^{25})$ representation, e.g., for implementing at least some AES encryption and/or decryption operations on data provided in a $GF(2^{25})$ representation, by converting the $GF(2^{25})$ into a $GF((2^5)^2)$ representation (102) and performing $GF(2^{25})$ equivalent operations in the $GF((2^5)^2)$ representation (104).

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